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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/686,870	10/15/2003	Thomas J. Laginess	IN-5698	7421

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BASF CORPORATION
Patent Department
1609 BIDDLE AVENUE
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EXAMINER

BERMAN, SUSAN W

ART UNIT	PAPER NUMBER
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1711

SHORTENED STATUTORY PERIOD OF RESPONSE	NOTIFICATION DATE	DELIVERY MODE
3 MONTHS	02/26/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Notice of this Office communication was sent electronically on the above-indicated "Notification Date" and has a shortened statutory period for reply of 3 MONTHS from 02/26/2007.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary

Application No.

10/686,870

Applicant(s)

LAGINESS ET AL.

Examiner

Susan W. Berman

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 January 2007.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-20 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 01-29-2007 has been entered.

Response to Amendment

The objection to claim 19 for informalities is withdrawn.

The rejection of claim 14 under 35 U.S.C. 112, second paragraph, is withdrawn.

Response to Remarks

Applicant's arguments filed 01/29/2007 have been fully considered. Applicant argues that the Fenn et al range of 1 to 8% photoinitiators has one significant figure. Applicant further argues that applicant's previously recited range of 0.1 to 0.95 % by weight, according to NIST guidelines includes 0 with respect to 0.1 % and that the significant figure is 0 with respect to the 0.49% recitation, as both the 0.1 and the 0.49 values are less than 5. This analysis is considered to be an improper application of the NIST rules for the following reason. The rule is that if the digit to be discarded is less than 5 then the preceding digit is unchanged and if the digit to be discarded is more than 5, the preceding digit is rounded up. According to these rules, the range 0.1 to 0.95 becomes 0.1 to 1.0 % by weight. The 1.0 % by weight photoinitiator reads on the disclosure of Fenn et al. According to the NIST rules the range 0.1% to 0.49 % now recited in the claims would become 0.1% to 0.5 %, which is outside the range taught by Fenn et al.

New ground(s) of rejection of claims 1-20 over Fenn et al are set forth herein below.

Claim Rejections - 35 USC § 112

Claims 1-20 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The disclosure, as originally filed, sets forth that the primer composition contains 0.1 to 0.98%, preferably 0.1 to 0.95%, by weight of photoinitiator D in paragraphs [0011] and [0018]. "Sample 1" on page 9 contains 0.5% photoinitiator. However, sample 1 is not clearly an example of the claimed compositions since sample 1 does not appear to contain an ethylenically unsaturated compound "a" in claims 1 and 11 and does contain difunctional and hexafunctional urethane acrylates not recited in the claims. Thus, applicant may have basis in the specification for a recitation of 0.1 to 5% by weight photoinitiators if the Sample 1 composition corresponds to the claim 1 and claim 11 compositions. Is there evidence of record that the "solvent" in the composition is an ethylenically unsaturated monomer "a"?

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fenn et al (6,838,177). See the Abstract, column 1, lines 4-25, column 3, line 29, to column 4, line 62, column 5, lines 13-32, and the examples. Fenn et al teach compositions wherein the weight percents of components are within the instantly claimed ranges except for the amount of photoinitiator being from 1-8 % by weight. Fenn et al teach the same photoinitiators and photopolymerizable components as are set forth in the instant claims and discuss the same UV-B to UV-A ratio in radiation exposure as set forth in instant claim 18. Fenn et al also discuss the same UV-B to UV-A ratio in radiation exposure. Fenn et al teach exposure to UV radiation from 30 sec. to 10 min., preferably 1-3 minutes, for cure. Fenn et al teach that using less photoinitiator would result in compositions that "may be tacky" following exposure to UV radiation for 1-3 minutes, while the instant claims require a non-tacky surface after UVA radiation in 2 minutes. Fenn et al teach that any sticky uncured surface can be removed by wiping the surface with a solvent.

It would have been obvious to one skilled in the art at the time of the invention to employ an amount of photoinitiator less than 1% by weight, such as the 0.1 to 0.49% set forth in the instant claims, in the compositions disclosed by Fenn et al for the following reasons. Fenn et al teach using as little as 1% photoinitiator and also teach that using less photoinitiator may result in tackiness following exposure to UV radiation for 1-3 minutes. It would have been obvious to one skilled in the art at the time of the invention to select a particular photoinitiator and to use an amount of photoinitiator less than 1% in the compositions disclosed by Fenn et al. One of ordinary skill in the art at the time of the invention would have been motivated by an expectation of possibly obtaining a non-tacky surface after 1-3 minutes of UV radiation. Fenn et al teach that using less photoinitiator would result in compositions that "may be tacky" following exposure to UV radiation for 1-3 minutes.

However, It would further have been obvious to one skilled in the art at the time of the invention to determine the intensity and duration of radiation exposure required to cure a particular composition

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containing a particular amount of photoinitiator to a non-tacky surface from the disclosure of Fenn et al.

One of ordinary skill in the art at the time of the invention would have been motivated by a reasonable expectation of obtaining a coating having a non-tacky surface by varying such factors as kinds and amounts of monomers and oligomers, kinds and amounts of photoinitiator, time of light exposure or intensity of light exposure. It is known in the art of radiation curing that the amounts and kinds of photopolymerizable materials, amounts and kinds of photoinitiator and time and intensity of radiation exposure as well as coating thickness, among other factors, affect the cure time and level of cure.

Therefore, one of ordinary skill in the art at the time of the invention would have been expected to have the expertise to determine the thickness of coating, amount of photoinitiator, as well as the kind, intensity and duration of radiation exposure required to cure a particular composition from the disclosure of Fenn et al to a non-tacky surface within 2 minutes. There is no comparative data of record to show that the use of 0.49 % by weight photoinitiator in compositions compared with the compositions containing 1.0% photoinitiator taught by Fenn et al provides unexpected results.

With respect to the recitation of cure to a non-tacky surface by exposure to sunlight in claim 1 or to natural outdoor light in claims 11 and 18, Fenn et al teach polymerization by exposure to UVA light but do not specifically mention polymerization by exposure to natural light conditions to provide UVA light. It would have been obvious to one skilled in the art at the time of the invention to substitute natural light exposure for UVA light exposure because natural light, such as sunlight, provides exposure to UVA radiation. One of ordinary skill in the art at the time of the invention would have been motivated by an expectation that the disclosed compositions would cure when exposed to natural light.

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Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Susan W. Berman whose telephone number is 571 272 1067. The examiner can normally be reached on M-F 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on 571 272 1078. The fax phone number for the organization where this application or proceeding is assigned is 571 273 8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SB
2/9/07



Susan W Berman
Primary Examiner
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